Banning (E.P.)

TWO MONOGRAPHS

BY

E. P. BANNING, SR., M.D.

1

The Comparative Merits of the Gypsum Jacket and Adjustable Supports in the Treatment of Spinal Affections.

2

The Pathology and Therapeutics of Uterine Displacements

PRICE 25 CENTS.

NEW YORK:

A. G. SHERWOOD & CO., 76 EAST NINTH STREET.

1882.

LETTERS.

ATHENS, PA.,
August 17th, 1880.

I take great pleasure in saying to the medical profession that I have been acquainted with Dr. E. P. Banning for the last ten years, who has devoted and spent nearly forty years in the study and preparation of instruments for the relief and cure of displacements of the uterus, spinal irritation and Pott's disease of the spine and hernia.

I have had quite a good deal of experience with his appliances for uterine displacements, and believe that they are superior to any other instruments in use. A *careful study* of their action cannot fail to impress the observer that they have been produced after a careful philosophical and scientific research.

The Doctor depends on the medical profession for aid in the introduction of his valuable instruments.

There have been so many appliances for remedying the diseases above mentioned that are perfect failures, it is realy *refreshing* to find some that are worthy of the respect of the profession.

E. N. ALLEN, M.D.,
late Professor of Principles and Practice in the
Berkshire and Geneva Medical Colleges.

NORTH LEWISBURG, OHIO,
February 27th, 1883.

DR. BANNING:

Your letter came to hand on the 20th, but the supporter did not arrive until the 24th. It is just what I needed, and fits like a glove. It was worth the price of it to see the patient after trying it. She had not been able to walk across her room for several days, but as soon as I got it fitted she straightened up and commenced running over the house with perfect ease. She said it made her feel "*just angelic!*"

Enclosed find Post Office Money Order for thirty dollars, and dimensions for a "Spinal Prop." Please send as soon as you can by U. S. Express. I think I can use one hundred of your appliances before the year closes.

Yours truly,
H. P. HAVENS, M.D.

DAYTON, CATTARAUGUS CO., N. Y.,
November 18th, 1882.

DR. BANNING:

Dear Sir:—To-day I spend a few minutes in giving you a short sketch of the boy Foster and the supporter I purchased of you for Pott's disease of the spine. The boy had not sat up for nine weeks nor walked. I had to labor hard against the opinion of other doctors, who wanted to have a plaster-paris jacket for the boy. I finally overruled the case in favor of your support. You probably remember when you sent it to me. I put it on him; it fitted him nicely. We left the boy at will and he got up and walked around the house quite a spell. At their great surprise, in three days he could walk two miles in a day with ease, and in four months he was cured, sound and well. Your principles are correct in every respect, and I can recommend them to the afflicted.

Yours most respectfully,
M. P. ROBERTS, M.D.

P. S.—Shall endeavor to sell all I can of your supporters, and make them a specialty.

THE

RELATIVE MERITS

OF THE

Gypsum Jacket and Adjustable Supports

IN THE

TREATMENT OF SPINAL DEBILITY.

BY E. P. BANNING, SR., M.D.,

9 ST. MARK'S PLACE, NEW YORK.

Reprinted from the Philadelphia Medical and Surgical Reporter issued January 24th, 1880, and as read before the New York Academy of Medicine,

REVISED AND ENLARGED BY A. T. BANNING, M.D.

SO great has become the prevalence of spinal irritation, caries and curvature, as to make the question of the *best* means of their mitigation an absorbing topic. I select two for comparison, the Gypsum Plaster Jacket and the Spinal Prop.

As both plans embody merit, I propose to impartially analyze their *modus operandi*, in the light of physiological law and of natural philosophy, with a view to settling the question as to which of them afford the *greatest* advantages, both as to the temporary and immediate, and the *ultimate* and *permanent* interest of the subject.

We will suppose the *subject* to be somewhat as follows: the bodies of some of the vertebræ are softened or tending to softening, to say the least; their intervening cartilages are seriously compressed, widened and thinned; the *face* of the spine is shortened, and its dorsum correspondingly extended; the spinous ligaments and dorsal muscles, in consequence, are put upon a corresponding strain, and the superincumbent weight of the superior trunk, by an acquired leverage, is coerced to increase these abnormal conditions, and all of these conjointly must tend to progressive irritation, inflammation, softening and absorption of cartilage and bone, and also, to a painful strain upon the spinous ligaments, and an attenuation and exhaustion of the spinal muscles. It must also tend to compress the primæ viæ and depress the diaphragm; impede free respiration and depress all the pelvic organs; also, to impede the force of the sanguineous and nervous circulations in the inferior extremities. Add to all this, also, the fact that there is probably a constitutional cachexy; and further, that the nervous system greatly preponderates over the osseous and muscular, which is much against the patient.

Now, in order, first, to comfort, and secondly, to save the patient

(apart from requisite constitutional treatment), several things imperatively demand to be done—

1st. Crushing superincumbent weight must be removed from the softening points of the spine, compressed cartilages, exhausted spinous ligaments and muscles.

2d. There must be some actual *lifting* force brought to bear upon the depressed abdominal viscera and the settling upper trunk, so as to assist

FIG. 1.

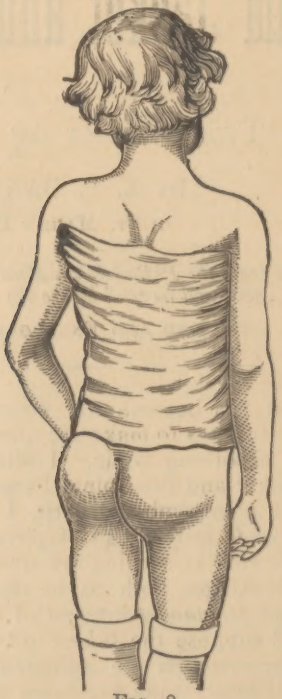


FIG. 2.

FIG. 1.—Plaster Jacket.

FIG. 2.—Plaster Jacket on the body, squeezing the body into shape, like an inelastic hoop, with nothing but a horizontal inward and downward force, and not an ounce of direct vertical action.

the inadequate abdominal and spinal muscles in lengthening the shortened face and shortening the elongated dorsum of the spine.

3d. There must be no depressing influence left upon the abdominal and pelvic viscera, or upon the circulating communications of the extremities; and no compression of the first digestive organs, nor any restriction on the freest movements of the ribs, lungs or heart.

4th. And whatever we may do, nothing must compromise or jeopard-

ize the largest strength and activity of the spinal, abdominal and pectoral muscles.

Each of these points are of *cardinal* physiological importance, more especially as relates to the permanent re-establishment of the patient; and none of them may in any wise be disregarded for mere *temporary* advantage. With all these points in mind, we will proceed to give the patient what support and erection we can by the application of the Gypsum Jacket. Look at it on the subject. We see it to be a skin-fitting and unyielding appliance; that it fits with such tightness and uniformity everywhere that the patient can stand, and is really straighter. Settle down he cannot, for he is literally hugged and squeezed into some straightness.

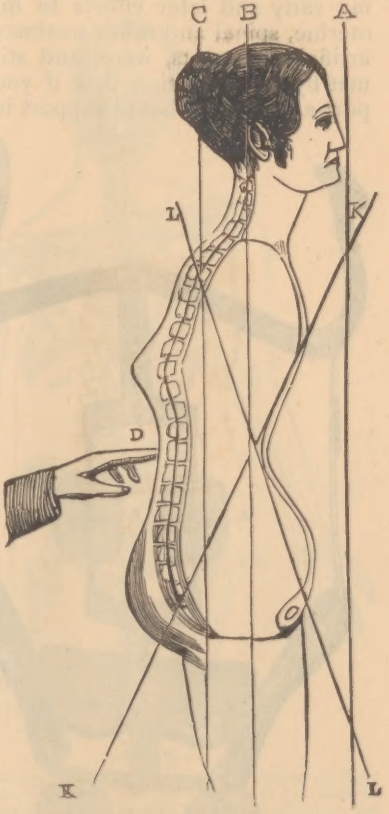


FIGURE 3.
Case of Angular Curvature, showing deformity without caries.

Now, were there no other considerations than that of straightening the spine to be looked after, we might always depend on an almost indefinite amount of improvement by this process, aggressively managed. But how does this mere circular jacket accomplish all the above-named indications? Certainly, not by the slightest direct vertical support or elevating action on the depressed abdominal organs or settling upper trunk, nor by any actual supporting, expanding or spring action; but on the contrary, by a mere circular, horizontal and squeezing action, and that, too, around the middle of the trunk, and over those vital organs which demand the freest action in the performance of their indispensable functions.

Let us scrutinize the internal working of this process. First, the stomach, liver and spleen are being compressed, which will tend to derange the process of digestion; the bowels are also more or less depressed, which will tend to induce urinary irritation, constipation, piles and uterine obliquities and displacements from bowel weight, and this pressure is also liable to be extended to an obstruction of the nervous and sanguineous circulations, inducing numbness and weakness of the inferior extremities; and the most palpable of all, the action of all the pectoral muscles and lungs is seriously impeded, so that respiration has mainly to be performed by the abdomen, while in the case of a scrofulous and consumptive tendency, the lungs are in danger of congestion and lack of necessary motion.

Suppose that these visceral effects are sometimes averted, still, with so small an opportunity for the restoration of the spinal, pectoral and abdominal muscles by inherent effort, how is the patient to recover his

wonted strength? For, in real truth, muscular laxity is always a strong underlying element in the case, and has been more influential in its establishment than was any specific local nucleus of disease in the spine; hence, the re-enfranchisement of the whole set of trunkal muscles is second to no other object in the treatment, and this enfranchisement has to come mainly through systematic effort.

I have asked the above questions with emphasis, in view of the fact that my early and later efforts to mitigate uterine, spinal and other weaknesses by artificial supports, were, and still are, met by the objection that if you support a part that should support itself, it becomes weaker, and you will always have to support it; and yet here the cure is attempted by a process which *literally* paralyzes muscular effort, and is a direct infringement upon the most vital functions. Notwithstanding this, I am convinced that *force* enough will straighten

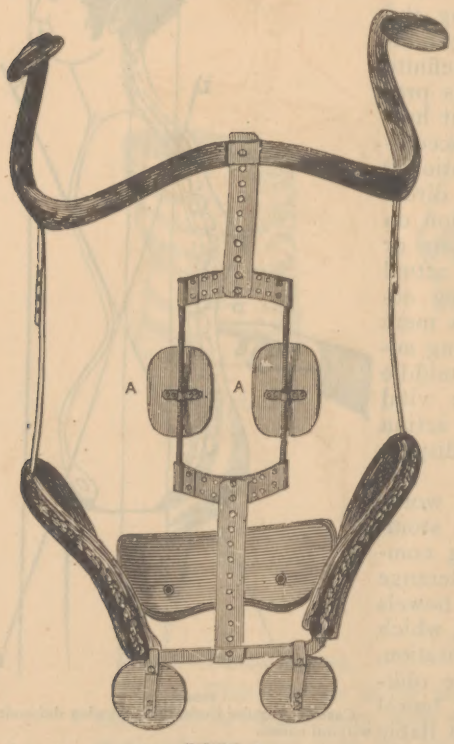


FIGURE 4.

REVOLVING SPINAL PROP.—*AA*, plates which revolve on screw posts, so as to fit the planes of the curve on either side, and secure an equal flat support. These plates are curved to the form, and may be run up and down, on the screw posts, to suit the height of the curve; they are a positive protection against bruising or irritating the prominent parts.

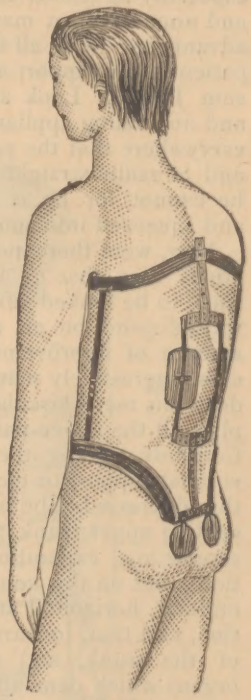


FIGURE 5.

THE REVOLVING SPINAL PROP.—Immediately strengthening the whole person, and arresting caries and curvature: First, by inward support, which converts the abdominal viscera into an internal brace. Second, by its crutch-like action, which holds the body's weight from the spinal curve. Third, by a strong drawing back of the shoulders by the caps on the shoulder-bow in front of the heads of the humeri. And fourth, by the strong bracing and pushing forward action of the revolving dorsal plates on the vertical screw rods upon the curvature. By a revolving action, these plates are self-adjustable to any slope of the spinal angle at either side, with no necessity for any impingement upon the spinous protuberance. As the case improves, the vertical support may be successively increased by means of slides and screws in the side-posts.

almost any spine (or a crowbar, even); but by this method how are you to keep it straight and give *permanent* spinal and muscular vigor to the body? But these criticisms may be met by the citation of cases of complete success in curvature and caries, and of complete restoration to muscular vigor, just as in the case of fractures, etc. To this I reply, first, that in fractures there is no *vital* function involved, or any danger to the muscles from their temporary confinement. Next, that the question does not stand, as to what *can* be done, or *borne*, under an emergency, but rather, is there not a *more excellent* way, which is equally effective, and at the same time avoids the specified drawbacks.

We will now, in turn, consider the construction and working of the Revolving Spinal Prop. (See figures 4 and 5.) This appliance consists—

1st. Of a basic framework, which fits so evenly just inside and above the edges of the *innominata*, as to make it immovable, and enable it to bear any amount of weight without giving pain. This also has an undulating and supporting abdominal plate, attached which exerts a strong *upward* action.

2d. The *terra firma* is surmounted by soft crutches, which are held under the axilia by jointed side posts, which are attached to the frame as a base.

3d. Next is a long spinal lever with revolving plates on a hollow square, which is attached at top and bottom to the shoulder crutches and base. Thus we see it is a supplement to the pelvis, spine and chest, and also, to the abdominal, spinal and scapular muscles.

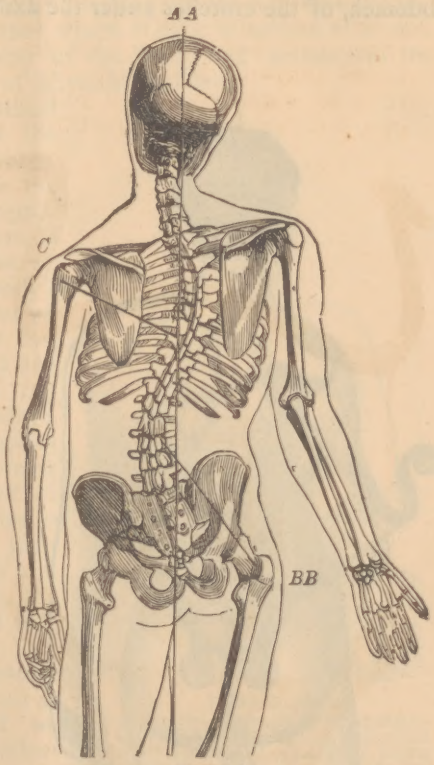


FIGURE 6.

Fig. 6 represents the body supported mainly on right foot, *A A*, perpendicular line, from centre of head to right heel; showing the head to be still vertical to the basal point. *B B*, angular line indicating the direction of gravity against the lumbar spine and shoving it to one side. *C*, line showing the weight of the head and left shoulder to be in the interest of a dorsal curve to the right.

We will now place this appliance upon the subject. (See figure 5.)

1st. We see the pelvic framework sitting quietly inside and above the unyielding pelvis, and ready to bear any desired amount of superincumbent weight complacently.

2d. By the lifting and undulating action of the abdominal plate at the lower hypogastrium, the depressed viscera are all elevated from the pelvic organs, and the arteries, veins and nerves of the extremities; also, that the viscera are compelled to *ascend* to their normal height to support the upper viscera and expand the trunk, at the now contracted region of the epigastrium.

3d. The jointed side-posts, resting on the arches of the base, force

the soft crutches to support and lift the superior trunk off from the cartilages, softening vertebræ and digestive organs, and thus to tend to straighten the settling spine.

4th. The spinal lever and its revolving plates on the hollow square, gently and yet forcibly brace forward the retreating curvature toward its proper spinal axis, and compel the shoulder caps, which are its antipode point, to correspondingly draw back the advancing shoulders. Thus, by the simultaneous and conjoint lifting action of the lower part upon the abdomen, of the crutches under the axilla, and the bracing forward and

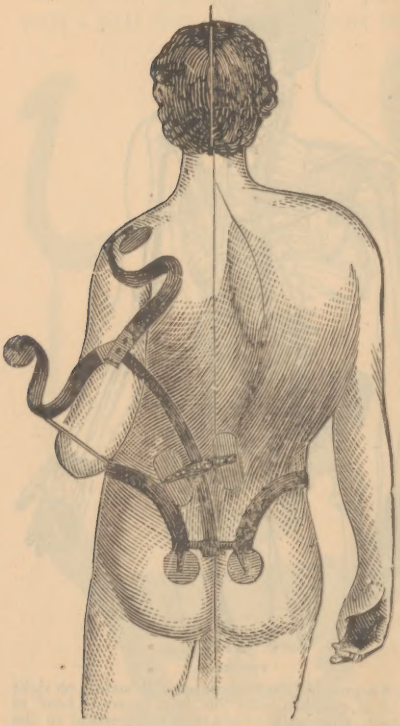


FIGURE 7.

Centripetal Spinal Lever, accomplishing nothing, its lever powers not being brought around the shoulders.

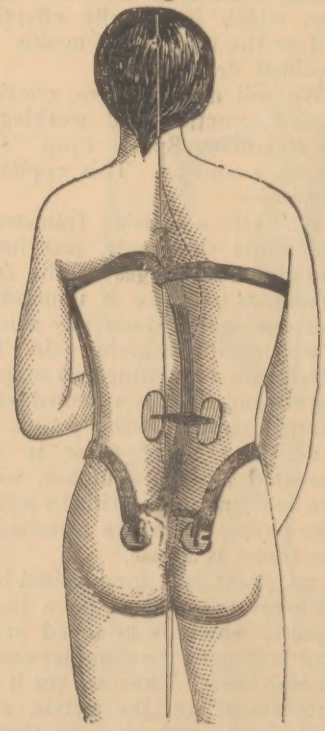


FIGURE 8.

Centripetal Spinal Lever in full activity, elevating and drawing out the left shoulder; drawing in the right shoulder; supporting the lumbar curve to the right, and aggressively restoring the body to its axis, and so, crushing out the curvature by means of the very gravity which caused it.

drawing back action of the revolving plates and the shoulder caps, all the trunkal muscles (and bones as well) are supplemented; the whole trunk, without and within, is lengthened and expanded; the face of the spine is steadily lengthened, and its dorsum shortened; and the dissolving bones and cartilages are relieved of a disorganizing pressure; the pelvic organs and the circulation of the extremities are relieved from any depressing force; the viscera also are restored, and the warming and stimulating support of the bowels; the inverted diaphragm is again concave-convexed; the heart is properly supported, and the freest play given to all the organs of respiration.

Furthermore, a mere superficial glance will suggest that there is not one backward, inward or contracting depressing action, nor the compression of one vessel, viscus or muscle ; but that, on the contrary, the spine and abdomen are shoved *outward* and *forward*, just as in the action of the abdomen, spine and scapula, when a man thinks enough of himself to bring those muscles into requisition in health.

Without a doubt, curative or mitigating results may occasionally be wrought by both of the contrivances under discussion. But, as before said, the question stands, not as to what has been, or *can* be done, in instances, in *spite of principles*, but rather, which is most in accord with and in imitation of the combined forces of the body, and accomplish its object with the least contravention of physiological law.

In *bilateral curvature*, unequalized weight from a one-sided base is the cause and perpetuation of the trouble. It is also manifest that to reverse the force of the body's weight to the opposite side, at each point of curvature, is the true principle of cure indicated; consequently, if we shift the body's weight from the right to the left foot we accomplish the desideratum, for this effects a complete reversal of all the crushing and curving forces to the opposite side, at each point of curvature, thereby causing weight to brace against each spinal convexity, and also to relax the strong muscles on one side, and to compel the dormant and lax muscles to commence to work, so that by the joint action of a double reversed gravity and a double reversed muscular action, the bilaterality is crushed and dragged into axis. See Figs. 7, 8 and 9.

FIGURE 9.

Fig. 9 represents the double acting spring reverser applied, which by its spring pressure on the enlarged shoulder and opposite hip, assists the Centripetal lever in swaying the body into its axis at the same time leaving the motions of the body free. By its action the inequalities of the hips and shoulders of young people are corrected with no deforming appearance through the apparel.

But this, like the producing curve, is to be done *specifically* at one part and at the convexity of each curve, if we would have any aid from nature, philosophy or physiology. This action we found in the Centripetal Spinal Lever, which yielding but forcibly braces each curvature toward the true spinal axis, thereby balancing the body upon the opposite foot and upon the spinal centre, and causing the very weight which made the curvature to restore symmetry and strength by crushing out the same.

But where is there the slightest approximation to a specific lateral action, even at *one* point—and much less at *two*—by the simple coffin or unyielding jacket? It is not and cannot be in it. All that can be done by it is to *stretch* the crooked form, and in that state so unyieldingly confine and stiffen it that it *cannot* crook. In this case the pressing or supporting points will be at the top of the jacket on one side and at the bottom on the other, often pressing at those points with severity, but not

one ounce of action but the squeezing one is exerted anywhere, nor the slightest approach to equalization of weight or muscular antagonism. On the contrary, they are discouraged.

Spinal irritation is a phase of spinal trouble which, though not necessarily attended by any curvature, is second to no caries in point of the local and general suffering which it involves. It may not involve the slightest curvature, nor any apparent undue compression or inflammation of the cartilages; not even congestion or redness of the *medulla spinalis* or its meninges. Often, in the worst of these cases, dissection has found none of the footprints of this malady in any of the spinal tissues.

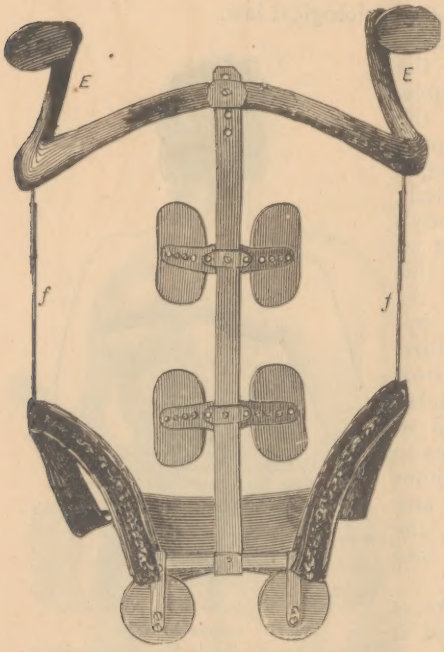


FIGURE 10.

FIG. 10. The Spinal Prop consists of Fig. 5 with the addition of *f f*, which are extensible side-posts resting upon the arches of Fig. 5, and converting the shoulder-bows *E E* into unyielding crutches.

By this addition, not only are the viscera elevated, the shoulders drawn back, and the proper forward spring of the lumbar spine preserved, but a tender, irritable, or carious spine is vastly relieved of pressure. The subject is allowed to exercise freely, and threatened disorganization and curvature are averted.

The phenomena are, sense of pain and tenderness over the whole or a portion of the vertebræ; fugitive or permanent pains in some or all of the viscera; pain, pressure, dizziness, confusion and noises in the head, with vigilance, anxiety, sleeplessness and inability to either think or stop thinking. Usually, all these symptoms are aggravated by standing, twisting the body, or walking.

Various and many are the theories of its pathology. Some, that of local spinal irritation; some, reflex action from the uterus and other organs, and probably there is, at times, some truth in each of these in turn; but, as a rule, the corresponding local and internal treatments fail to cure, and very often to ameliorate, even. But by far the most common theory is that of an irritated or diseased condition of some tissue of the spinal column, which must be met by diverting such morbid action to the surface by a counter surface action. This is undertaken, first, by moderate counter irritants, which (as the failures may indicate) are to become more and more severe, from repeated blisters to setons, the caustic potash, and the moxa, and at length, to the actual white hot iron down the full length of the spine on each side.

But however obscure and unsatisfactory the various pathologies of irritation of the spinal tissues are, and however unsuccessful the counter-irritating treatments are, one thing is nearly certain: if you place your hands under each axilla and gently lift for five minutes, or if you, at the same time, support the abdomen and the small of the back, the greatest sufferer universally speak of a sense of rest from uneasiness and pain.

Now, while this cannot prove the existence of any particular condition of the spine, it must clearly show that weight and fricton on the vertebræ aggravate the local and radiated sufferings, and most forcibly suggests that a *part* of the remedy, at least, is to elevate the abdominal viscera from the irritable uterus and ovaries, and at the same time a part of the weight from the irritable cartilages, ligaments and nerves, and also to preserve the privileges of air, exercise and the diversions of society.

For the accomplishment of all this, we have, first, the circular and mere horizontal supports, of which there are two kindred varieties, first, the Gypsum Jacket, second the Laced Jacket, armed with spiral springs. The action of the first is like a broad hoop to a slim, green putty figure, and does not remove *any* weight, either by supporting the abdominal organs or the weight of the upper trunk.

The second class of supports is that represented by a modification of Fig. 4. This appliance differs from Fig. 4 only in having no hollow square, because there is no curvature ; its long lever here acting simply as a *brazing support* or an artificial spine. See Figs. 10 and 11. The interpretation of the whole is, first, to elevate and compact the whole line of viscera from the uterus, and compel them to support the spine from within, as the body does its garments ; next, to protect the irritable points from a constant aggravating weight and from jolts ; third, to push forward the dorso-lumbar curve, so as to relieve the vertebral bodies and cartilages from pressure, by balancing the weight of the body directly over and upon the central processes of the spine.

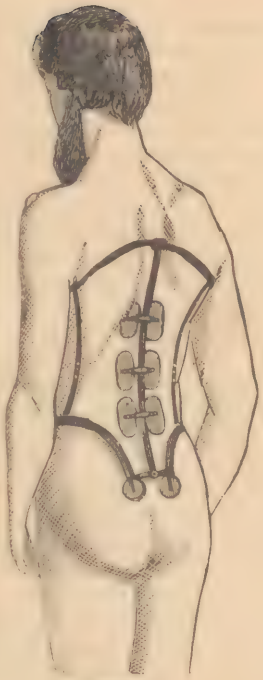


FIGURE 11.

Fig. 11 shows Fig. 8. not only supporting the abdomen, expanding the waist and chest, and supporting the weak spine, but also relieving spinal irritation by taking the weight of the body from tender spinal points, and protecting the latter in the case of jolting and twisting the body. This it accomplishes by the crutch action under the axilla, which compels the innominati to carry the superincumbent weight and receive the shocks.

Thus much for the *theory* of the malady and of the treatment, but fortunately for humanity, the historic record has been so benign as to far outstrip and beggar any theory. Indeed, so wonderful has been the results of this appliance in the premises, in hundreds of cases, that I am barely restrained from citing quite a number, but one must suffice.

Case 1.—Miss O., of Allegheny City, Pa., had been fourteen years the subject of spinal irritation, without curvatures. For seven or eight years, she was mainly confined to bed. The pains in her whole spine and head were so unbearable as to preclude sleep; even under heavy doses of chloral and morphine, she said she "never slept." The flesh entirely wasted from her limbs, and the skin hung around them like a shirt. For four years she never stood or sat up. The spine was untouchably tender. This case had sturdily encountered the *heroic* practice from simple blisters all the way up, to repeated burnings down each side of the spine, with the hot iron, till "the smoke ascended to the ceiling." This course was forlornly pursued until the surgeon voluntarily

retired from the case, and "left her to nature," (quite wisely.) In this condition, while she was prone upon her back, I applied the Prop. (Fig. 6) to raise weight from the uterus and from the sore and aching spine.

RESULT:—On the first night *she slept*, and from that day had to draw no more blisters. Soon she relished food and continued to sleep regularly; and in four weeks sat up (and walked the room) four hours a day. The flesh also returned to her limbs gradually, and she was the wonder of that section of the country.

And now, my duty done, I earnestly say to practitioners and to sufferers: blame me not if you still pursue the old, cruel and unsuccessful way, with such palpable light before you.

This pamphlet is presented by A. T. Banning, M.D. with the hope that it may be the means of calling the attention of the profession to this rational mode of relieving and curing a class of cases that have long been the bane of the general practitioner. These instruments which are entirely free from patent restrictions can be sent to any address on the receipt of measurements and price.

HOW TO ORDER ANY OF THESE APPLIANCES.—First, send remittance with the order; Second, give minute description of case; Third, in spinal deformities, send two photographs of the patient's nude back (one front, one profile); measure accurately, over linen; Fourth, always give complete history and state of case; especially where the uterus is involved, give the precise uterine bearings and organic condition.

HOW TO MEASURE.—First, around the pelvis, two inches below tip of hip bone; Second, around chest, close by the axilla; Third, from each axilla to corresponding tip of hip bone; Fourth, height of patient. Let the measure be taken over undergarments, and be drawn snug, but not tight. Send in inches, not in tape. The instrument may be exchanged to suit, if returned immediately and in good order, not encumbered with charges of any kind.

The profession are warned against unscrupulous parties who are using the Banning name and imitating the inventions. There are but two Doctors in New York bearing that name—*E. P. BANNING, Senior,* and *A. T. BANNING,* to whom all letters should be addressed.

Physicians generally succeed in adapting these instruments to patients. In our own hands we have yet to score a single entire failure. Physicians can send their discouraged patients to our New York office, where every effort will be made for their relief and no interference with the general line of treatment is allowed. We assure a degree of success for our ordinary office fee.

No. 9 Saint Mark's Place (East 8th Street) is our only address in New York. This caution is made necessary as there are other parties here, notably one on Broadway, who, besides imitating the inventions, have personated Dr. Banning. Address,

ARCH. T. BANNING, M.D.,

9 Saint Mark's Place, New York.

THE

PATHOLOGY AND THERAPEUTICS

OF

UTERINE DISPLACEMENTS.

(READ IN BRIEF BEFORE THE ACADEMY OF MEDICINE, N. Y.)

BY E. P. BANNING, SR., M.D.,

NO. 9 ST. MARK'S PLACE, NEW YORK.

Revised and Enlarged by A. T. Banning, M.D.

I BELIEVE it is now generally conceded that the whole domain of medicine and surgery, unaided by mechanics, must be inadequate to supply all the desiderata in uterine obliquities, displacements, and their derivative effects, because of their pathology being largely mechanical; and, notwithstanding some of the profession have been driven from an exclusive medical treatment, constitutional and local, to various mechanical devices, still, it remains a grave doubt whether, in the aggregate, success has been greatly enhanced by them; to say the least, all the desiderata have not been supplied, and hence I submit a few suggestions touching the reasons for this *partial* success. In attempting this, I shall pretend to no extraordinary professional intelligence; and if I should supply the required light, it will be due to the purely common-sense view which I take of the obvious mechanical forces in the premises, and I shall gladly rest content to leave the departments of medicine, surgery and hygiene in far better hands.

PATHOLOGY OF UTERINE DISPLACEMENTS.

Protracted and extended observation has forced me to the conclusion, that the prevalent pathology of uterine displacements is more or less defective, its ruling idea seeming to be that their physical causes originate within and are mainly confined to the intro-pelvic cavity and tissues, where, to me, it appears *manifest*, that the pelvic contents, in the main, are merely the objective point, and, that the abnormal pelvic status, both primarily and proximately, is caused by a relaxation of the abdominal,

dorsal and scapular muscles and ligaments, and by a consequent undue gravitation, not only of the abdominal contents upon the pelvic organs, but also, of the whole trunk, which has lost its centripetal bearings and fallen forward of the spinal axis in consequence of a diminished and unbalanced action of its muscular braces.

To illustrate: By a mere glance at Fig. 1, we see plainly, that the mathematical combinations of such a figure, induce, first, a centripetal or centralized state of all the trunkal bearings, or, in other words, a balancing of the whole superior trunk *upon and behind* the spinal axis, or

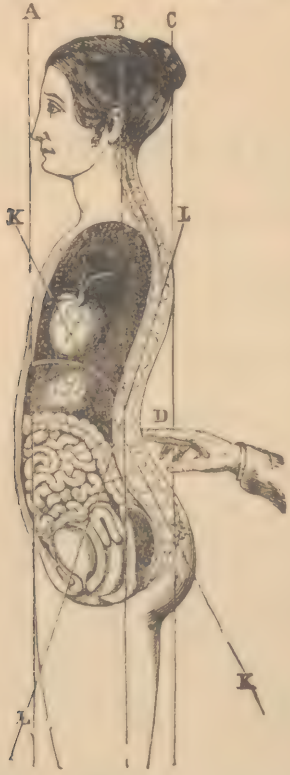


FIGURE 1.

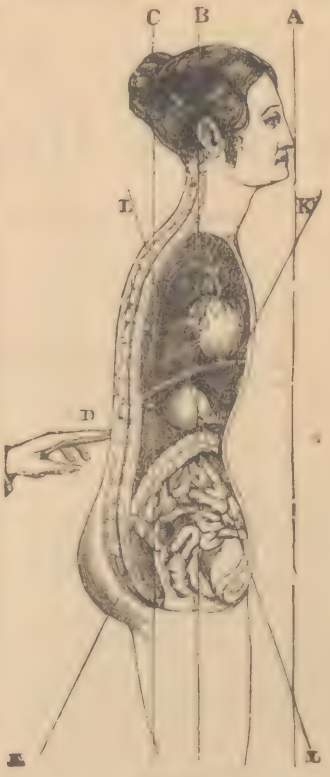


FIGURE 2.

Side views of the erect and drooping position, showing the upward and bracing out bearing of the Viscera in Fig. 1, and the downward action in Fig. 2.

point-d-appui: second, a tension of all the abdominal muscles; a consequent expansion of the chest and a protection of the pelvic viscera from abdominal weight by a steady and firm compaction *upwards* of all the viscera. Add to this the fact that the medial plane of the pelvis is comparatively vertical, and the inferior abdominal cavity (*anterio-posteriorly*) comparatively small.

By this combination, not only is the descending weight of the whole line of viscera materially impeded, but also, the force of visceral gravity is compelled to fall upon the *pubis*, and not upon the uterus, rectum and bladder in the inferior strait.

On the other hand, a glance at Fig. 2 shows, almost painfully, that a centrifugal state (the very opposite of the former) *revels*, as it were, throughout; for the spine has retreated behind the proper axis of the body, leaving the whole upper trunk to hang forward from the spine, and not to properly swing *behind* or to rest *upon* it as in Fig. 1. This centrifugal combination causes the chest to droop and flatten, the ensiform cartilage to retreat towards the spine, the medial plane of the pelvis to become nearly horizontal like a dish; the distance between *symphysis pubis* and the sternum to be much diminished and the abdominal muscles to consequently become flabby; also, the inferior abdominal cavity is compelled to be enlarged *antero-posteriorly*, and the head, shoulders and entire visceral series, made to descend, and in consequence, made to press with a corresponding abnormal force upon the uterus, bladder and rectum.

In fact, the contrast between these two figures and their involvements, is complete, and whatever *inherent* causes there may be to produce uterine descent, is it not manifest that such a condition of the middle and super trunk as is represented in Fig. 2, must greatly *augment* and remain at *least*, an obstacle to complete curative action; and, is it not also apparent, that this undue pressure *must* be greatly augmented by the superinduced horizontality of the pelvis?

THERAPEUTIC INDICATIONS.

It now being conceded that uterine displacement is wholly caused or aggravated by superincumbent weight, light at once breaks as to some of the indications of cure.

First, we should remove the superadded visceral burdens from the uterus and its ligaments, by restoring the body to its normal or centripetal bearings as seen in Fig. 1, by pushing forward the spinal *point-d-appui* (the dorso-lumbar portion of the spine) to an axial line between the ankle and the head; thus we restore the normal philosophical bearings of the skeleton trunk, (see mathematical diagram, Fig. 1, compared with Fig. 2) for by thrusting this portion of the spine forward into the vertical axis of the erect body, the weight of the head and shoulders become *elevating* agents and tensors of the abdominal muscles, and also contractors of the inferior abdominal cavity, by being compelled to throw gravity *behind* the spinal fulcrum.

This has also compelled the upper sacrum to advance and the inferior sacrum and the *symphysis pubis* to *dip* and to retreat (the sacrum to turn on its axis as it were) and thereby to restore the normal pelvic obliquity. The obvious result of this, is, to shelter the pelvic organs *below* and partially behind the lumbar spine and the superior sacrum and thus causes the pubis and the inferior abdominal muscles to receive the principal abdominal weight, (which is *supposed* to be so burdensome to the uterine ligaments.) Thus then, it is conclusive, that this balanced state of the trunk upon its own spinal fulcrum and this elevated state of the abdominal viscera once established, either by nature or by art, the case is then *changed* from that of a general derangement to a merely local one in the pelvis, and that both inherent and artificial resources are then left to contend *only* with the merely inconsiderable weight of the uterus alone, whereas, before this, they must contend both with the weight of the uterus and that of the whole line of viscera, together with that of the head and shoulders.

BY WHAT MEANS CAN WE RESTORE THE NORMAL RELATIONS OF THE TRUNK AND ITS CONTENTS TO THE PELVIC VISCERA?

Perhaps this question can be best answered, by showing how it *cannot* be accomplished.

1st. It cannot be done by *medicine* alone; for if medicine should remove every predisposing cause or constitutional influence, it could not change the *abnormal mechanical* status, the reflex effect of which, is, to neutralize the legitimate action of medicine, at least in confirmed cases. On this point, general experience has been so stubbornly unfavorable as to silence all opposing reasoning on the subject.

2d. It cannot be accomplished by any such physical discipline and culture as might have *prevented* the trouble, inasmuch as the laws of prevention and of removal are not identical, and often bear no analogy to each other.

To illustrate: it is palpable that habitual and energetic muscular effort, according to order, tends to generate muscular power; but, when muscles have *already* lost their powers from excessive or too long continued exercise, shall we quote the law of labor to the exhausted patient and urge him to stimulate his muscles to greater effort? It is also a fact, too, that motion is the law of a joint, and that it tends to lubricate the articulating surfaces; but, who would think of reducing a dislocation by urging the patient to make strong muscular effort? The truth in the premises is, that the law of function and that of casualty are very different. Nevertheless, there are those who seeing clearly the necessity of elevating unusual weight from the uterus, (when the uterus rests upon the perinæum, or is even protruding through the vulva); place this patient on a system of walking, riding and gymnastics, under the idea that the obliquity or graviation is produced by a previous lack of muscular effort, and that the opposite course is the true remedy.

This answers very well for logic, but does not meet the facts; indeed, I have had scores of "forlorn hopes" fall into my hands, whom this regimen of logic has reduced to the most miserable helplessness, the muscular effort having increased the uterine descent, when entered upon after the descent had fairly commenced; whereas, in a normal uterine condition such muscular effort may tend to preserve that state; the aggregate of muscular action being then in the ascendant. With me, such cases of improper effort have uniformly borne testimony to an aggravating influence.

Again, this laxity of the abdominal and dorsal muscles has usually been so entirely the result of excessive and protracted effort, that to apply the law of labor to them, as an excitant, is simply absurd; as much so, as to shout to an exhausted man grasping a rope over a precipice, and unable to turn above the rope:—"Keep on exerting your muscles till they acquire strength thereby to raise you up on to the rope," whereas, the only trouble is, that his weight by previous effort and stress, have already reduced him to helplessness; such, indeed and in truth, has been observation on this point, that to confine such patients to constitutional remedies and to urge muscular effort is but to actually insult the patient. Thus then, it is evident that in confirmed cases, a correction of the trunkal bearings and the elevation of visceral weight from the uterus will not be effected by muscular effort or medicine, either used separately or in conjunction.

We see then, that our main hope lies in the application of such mechanical force at the shoulders, dorso-lumbar spine and inferior abdomen as shall concordantly and at once, push forward the dorso-lumbar curve of the spine; draw backward the shoulders behind the spinal axis, and elevate the whole line of trunkal viscera. This, *should* be done, partly by *some* force at the first, and lastly, by a sort of provocative action, which, under a proper regimen, will gradually reduce the inhering muscular resources. Accordingly, I have for the last forty years made it the study and labor of my life to devise such a combination of mechanism as shall supply the above desiderata, and yet act in accord with the physiological law of muscular education.

See Fig. 6. It represents the combined abdominal, spinal and scapular muscles, or forces of the trunk, in the simultaneous or separate exercise of power, and consists of the following three points, namely: First, an abdominal pad looking and acting *upward*. Second, a steel spring or spine with a supporting saddle or spinal fulcrum pushing the dorso-lumbar spine forward. Third, a shoulder-bow (or steel scapular muscles) looking and drawing backward.

FIGURE 3.

A A, curved shaft to be attached to front bar of the brace, adjustably, and to support the small ring.

B, small rubber or celluloid ring, which fits loosely around the cervix, and by the means of a golden spiral wire, gives an undulating action under the joints of the body.

C, A pinch-screw, by which the ring may be elevated or depressed at pleasure.

D, A hinge, by which the ring may be turned on its edge for easy introduction.

E E, steel slotted pendant, for the supporting shaft and ring *B*, when in situ on the body.

F, Thumb-screw for adjusting and fastening the ring at any desired position in the body.

When this combination (which I denominate an abdominal and spinal shoulder-brace) is applied to the subject with settled viscera, a retreating lumbar spine and advanced shoulders, an immediate and general change in the external appearance and internal condition is palpably accomplished, *i. e.*, the spinal, abdominal and shoulder parts force the viscera upward, the dorso-lumbar spine forward, and the chest and shoulders backward, thereby effectively giving relief to the pelvic organs from superincumbent visceral pressure by visceral elevation, waist and chest expansion and the poising of the superior trunk behind the spinal axis. Meantime, it is particularly worthy of remark that all these changes are effected almost in a *natural* way, without restraining the free action of a single muscle, the compression of a single nerve, blood vessel or cartilage, or the constraint of a single motion; but, on the contrary, so concordant, yielding and provocative is the action as to excite the dormant resources to an increased effort.

OF SIMPLE UTERINE PROLAPSUS AND PROCIDENTIA.

This simplest and least painful variety of uterine displacements is the most easily met. It consists in a direct descent from the superior to the

inferior strait of the pelvis, without either lateral, backward or forward obliquity. Its low altitude in the cavity is the only troublesome fact, and the examining finger shows the descent to have inverted, shortened and expanded the vagina, whereas its most contracted diameter and extended length is requisite. In this low state, the uterine ligaments and their attendant nerves are most tensed, and their insertions tracted. Thus we have a rational explanation of the "dragging," "wrangling," "boring," and "toothache feelings in the back and groins," and the feelings of "openness," "turning inside out," or "feeling as if something wanted to be born at the vulva."

Again, this state does not always stop even here, but superincumbent pressure and constant stress upon the vulva, ultimately so overcome the tissues that the uterus protrudes through and is carried between the thighs through the day like an oblong ball.

CURATIVE INDICATIONS.

Quite commonly, even at this late day, men of renown and gray hairs attack such cases with tonics, order the recumbent posture and apply a pessary.

But the tonics can only give some *general* strength, whilst recumbency in giving *respite* from suffering, tends rather to diminish than to increase muscular tone; and I blush to say that many venerable men carrying out this plan, will spend months and years in calling once or twice a week, and with great solemnity and gravity replace the uterus, and gain a reputation for "great faithfulness" in the case; whereas, it would be as reasonable to place an egg on end on a table so often, in the hope that by and by it will stand.

OF PESSARIES.

Others, a *little* more sensible, (and but a little) resort to pessaries. Of the varieties of these, there is a legion. But no matter what their shape, if they give any support, they must do so by resting for a point of support upon the vagina and perinæum, whilst they *need supporting themselves*. In doing this, they necessarily distend the already relaxed and distended vagina and perinæum, which will gradually recede under their burden, and require a larger and still larger pessary, and thereby, whilst giving *some* relief from the effects of uterine gravitation, they steadily exhaust all the remaining contractibility in those tissues and thus wear out all hope of their again playing their part in sustaining the uterus in situ.

But not only this; they often work immense mischief by inducing ulceration and inflammation of the vagina and uterus, and have at times actually ulcerated through the bladder and rectum. I have often traced with my finger, a horizontal gutter around the vagina and also the uterus, especially under the action of the cup pessary with an external base, caused by their continued pressure; in many instances, they become imbedded in the tissues so as to make it both painful, difficult, and in some cases, dangerous to remove them. I have been young, and now am old, and I can testify, that pessaries have played a terrible part in producing the most obstinate forms of intro-pelvic irritation and inflammation. Indeed, a man desirous to treat such conditions, has only to seek a region where the physicians make a free use of pessaries.

The *modus operandi* of these effects is simply this: In proportion as the pessary really does support the uterus is something as the sweep supports himself, by pressing back, knees and elbows against the chimney—not only it has to support that organ, but has to compel the uterus to support the abdominal viscera (and the whole upper trunk in a measure). Thus, between the action of the fixed and upward pressure of the pessary on the one hand, and the pressure by the superincumbent parts above and downward, ulcerative action is almost necessarily induced; and not only so, but by holding the uterus up under such a down pressure, ante and retroflexions are established.

Again, and lastly, the *very best* pessary can only act by *catching* and *holding* a sinking body, and do nothing towards removing the producing cause, viz: the effect of superincumbent weight. Were they harmless, they operate only on the ultimate or effect, and never on the cause, and consequently without prospective success.

Another class of men, seeing the distending and weakening effect of pessaries on the vagina and perinæum, attempt to remedy this by using smaller pessaries with an external base, obtaining a fixed point by belts and straps around the pelvis; but, whilst they do obviate the distending and weakening effect on the vagina and perinæum, they produce far more cutting and ulcerative effects upon the uterus by forcing that organ against superincumbent weight, for they exert no rebalancing of the body, and no elevation of the upper trunk from the uterus. This last class (the cup pessary) has earned a very bad eminence for inducing uterine versions, flexions, also gutters in the uterus.

But, when we turn to the true idea, muscular laxity and a consequent false trunkal bearing and settled condition of the abdominal organs which act in the axis of the *inferior* in lieu of the superior strait of the pelvis, the rational mind sees at once that the first, foremost and paramount indication, is, to remove all the abnormal superior weight from the uterus, by pushing forward the dorso-lumbar curve, drawing back the chest, and thereby causing the pubis to dip and retreat, so as to not only lift weight from the uterus, but also to shelter it from weight by the compound mechanical combinations of the body, as in Fig. 1. This done effectively, uterine ligaments, vagina and perinæum are left to contend only with the two ounces of weight in the uterus. This is pleasurably accomplished by the abdominal and spinal shoulder-brace. See Fig. 6 and its previous description.

RESULT.

I have now been engaged many years in the constant application of this instrument, (in many thousands of cases) of simple prolapsus, and find that in *nearly all* the cases where the uterus is not very low upon the perinæum, (consequently *below* the benefitting action) the results have not only been immediate comfort, but steadily improving strength and spirits, and an ultimate recovery; and why? Simply because the normal trunkal bearings were restored, superincumbent weight removed from all the intro-pelvic tissues, and the perinæum, vagina, vulva and uterine appendages were rested and enabled by their returning contractibility of texture to triumphantly buoy up the simple two ounces of uterus in situ.

After this, if the constitutional condition requires constitutional remedies, give them; but in no case waste any time in that way until you have thus attended to the upward compaction of the settling organs and upper trunk.

But, in very great depression of the uterus within the pelvis and especially in cases where the uterus extrudes, then the above instrument almost invariably aggravates the effects of the prolapsus, by crowding and holding it still lower; or, to say the least, it can merely give great rest to the spine and lower abdomen without specially improving the uterine condition.

THE UTERINE ELEVATOR.

But, in all such cases, aggravated ever so much by the Brace, the instant we give the slightest vertical support with the hand, the sense of support is complete; for only a slight elevation of the uterus raises it within the upward action of the brace, and every tissue finds rest, and commences to expend its remaining resources in returning to their normal state of tonic contraction and not in exhausting and hopeless efforts to resist their merciless burdens.

To meet this indication, I have constructed the uterine elevator. See Fig. 3.

FIGURE 4.

RETROVERSION AND ANTEVERSION BALANCE.—*A A*, curved shaft occupying the vagina vertically, and curved so as to correspond to both the inferior and superior pelvic straits, and not to infringe upon the uterus or rectum.

F, thumb screw for fastening the outer shaft at any desirable point on the steel pendant supporting the shaft.

G, celluloid or rubber ring, mounted on a gold spiral wire in the shaft, for giving an undulating motion to the ring, under jolting motions of the body.

B, heel of ring extending high behind, supporting the posterior *cul-de sac*, thereby drawing back the *os* and pushing forward the fundus.

C, set screw for regulating the height of the ring or balance, and for turning the balance to meet any degree of lateral mal-position.

E E, the allotted pendant attached to the front part of the brace, and supporting the balance.

For Uterine Anteversion and Flexion we make use of the same instrument, simply changing the top piece so as to support the anterior fornex between the uterus and bladder.

This instrument consists, first, in a small, celluloid or rubber ring (only large enough to loosely receive the uterine cervix) which, by means of a hinge, is mounted on a shaft containing a gold spiral coil, which gives a yielding undulation to the ring, under all the movements of the body,

such as walking, coughing, sneezing, etc. This is also mounted on a shaft, so curved as to fit the vaginal curve, around the *symphysis pubis* externally, and ascend towards the front bar of the brace, to which it is attached by the medium of a slotted steel pendant, and its position fixed by a thumb-screw. When introduced and attached to the brace, the brace having lifted nearly all weight from the uterus, the elevator has to exert but about two ounces of yielding support to the uterus, which meets now with no opposing visceral obstruction to its easy elevation.

Thus we see, that by this gentle and unirritating means, the vagina is elongated and diametrically contracted, and the perinæum and vulva are at rest from their exhausting burdens; and all this without one contraband action against physiological law.

CONTRA-DISTINGUISHING FEATURES OF THE ELEVATOR AND PESSARIES.

They are many and clearly defined :

1st. Pessaries have to be large enough to hold themselves in position under weight ; but the elevator is too small to support its own weight, or even to remain in the body.

2d. Pessaries have no external base, and rest on other weak points for a point; whilst the elevator and all my other intro-pelvic supports, have an external brace and place no stress on any tissue, but rather rest them.

Pessaries can do nothing but support ; but these intro-pelvics have but two ounces to support, all other superincumbent weight having been removed by the elevating and uprising action of the external brace.

Owing to the great sameness of the many hundreds of cases, illustrating the working of the brace and elevator, I omit the citation of any.

OF RETROVERSION.

The physical facts are simply these : our examination usually shows the uterus not only to have subsided, often to the perinæum, but also to be occupying a horizontal position with the fundus resting with more or less force upon the rectum and hemorrhoidal veins, the *os* looking correspondingly forward and upward, behind the pubis. In this case, very commonly the fundus will be found so enlarged from venous congestion, as to lead the practitioner to diagnose an induration, and often a fibroid tumor ; and I am sorry to know of several experts who have committed this blunder, and have governed their course accordingly for years, of course with no good result. In this case, such a misdiagnosis is fatal to both the patient's hopes and pocket. As to the position of the organ, perhaps a bell-pair lying in a basin of water will about accurately describe the uterine situation in retroversion.

In this condition, obviously, both the round and broad ligaments must be elongated and tensed, comparatively, and their points of insertion subjected to a more or less dragging or tracting force, and the bladder must also be more or less dragged downward and backward, and sometimes so much so as to cause difficult urination from the flexion thereby caused in the urethra. All these things, taken together, furnish the clearest explanation of the frequent sense of tormina and pressure in the sacrum ; the desire to evacuate the bowels, and the sense of physical obstruction in attempting to do so ; also, the annoying, dragging sensations at the insertion points of the round and broad ligaments, and the more or less perpetual desire to urinate, with an unsatisfied feeling on making the attempt.

INDICATIONS.

Of course, two things are indicated, namely: 1st, to restore the proper axis or vertical position to the uterus; and next, to elevate it to the superior strait of the pelvis. But, the accomplishment of these indications with any considerable facility to any comfortable degree, has, so far as I can learn, signally fallen short of the object, so little benefit having been derived from the means used, as often to leave physician and patient in grave doubt as to whether the end gained has justified the means. To restore the uterus to situ in the recumbent position is usually an easy thing, but to *retain it* there in the vertical position is quite a different thing.

The exigencies of the case have compelled the use of a variety of means with nearly an identical result. The globe pessary has elevated the organ some, but done *nothing* towards restoring its normal axis, (the most important thing) and, in the meantime, it has done much towards instituting uterine flexion by its pressure on the *os*, whilst superior weight was resting on the fundus. Indeed, the end is always worse than the beginning.

Next, the elastic rubber ring has been used; but in order to prevent its tilting on its axis, under weight of the viscera and uterus, particularly in defecation, it has to be so large as to distend the vagina inordinately, and often, to injuriously infringe on the bladder and rectum and to work very serious mischief, by irritation, ulceration, absorption and inflammation. But the more frequent and very serious evil is, that it *slips* under the uterine weight so as to hit the fundus behind it, and thus cause the ring to rest on the uterus midway between the *os* and the fundus and thereby to produce *flexion* by the uterus breaking its back over it, also causing sickening pains in the organ, together with congestion of the fundus by an obstruction of the visceral circulation by the same pressure.

But, perhaps the horse-shoe pessary, of Dr. Hodge, curved so as to pass up *behind* the uterus, has, in skilful hands, been the most useful; but it, too, has weakened the vagina by reason of the extent of its circumference, irritated the rectum by pressure upon it, and usually failed to be reliable, because of its liability to turn under visceral and uterine weight, unless it was so large as to produce exciting and ulcerative pressure on the vagina and rectum. Often have I found these results, on their removal. Indeed, such *must* be the action of *all* pessaries which have only an internal base, for they *must* ever lack a *fulcrum* or fixed point.

Appreciating this dilemma, the distinguished Dr. Simpson of Edinburgh, introduced the stem pessary. This instrument, by occupying the uterine cavity and using the cervex as a fulcrum, compelled the uterus to take its position; but, as might be expected, from so unnatural a process, (with few exceptions), most undesirable and, sometimes, unmanageable results have attended, such as uterine irritation, inflammation, flooding and too frequent menstruation. Besides all this, it never could become reasonably self-manageable by the patient herself? consequently, in America, this nearest approach to the desideratum has passed almost into disuse. In this forlorn state of things, physicians gloomily compare notes, and then, with a shrug stare each other in the face.

Having myself, for many years, been compelled to succumb to the general professional incompetence in the premises, and goaded on by a humane humiliation under the great necessity in the case, I have, after inexpressible trouble and discouragements, succeeded in perfecting a device which I denominate the

which, attached to the abdominal and spinal shoulder-brace for an external base has, thus far, perfectly met the requisitions in all cases. See Fig. 6.

What is particularly to be noticed, is, the trifling degree of support or upward force to be used upon the *cul-de-sac* in consequence of the centripetal working of the abdominal and spinal brace, by which the balance has to contend only with about two ounces of floating uterus, whereas, but for this, the balance must contend with an indefinite amount of opposing weight from above, and from the weight of female apparel, which must be correspondingly enhanced by the liability to ulcerative pressure upon the susceptible intro-pelvic tissues.

Another important feature is, that *contact with a congested or ulcerated uterus or vagina* which may be undergoing local treatment, is completely obviated.

In all the hundreds of cases in which I have applied this arrangement, (all things equal) the most bedridden patient has immediately *commenced* exercises and enjoyments, and all the varied sympathetic concomitants have begun to subside.

Another important desideratum is applied by this balance, viz: it will be noticed that the ring can be turned in a circle to the right or left, so as to meet any degree or variety of obliquity or laterality, by simply turning its goose neck in the shaft where it enters it and is fastened by a set screw. This meets a crying want which has caused much trouble and yet has never been fully met.

CURATIVE ACTION OF THE BALANCE IN UTERINE CONGESTION AND ULCERATION.

And here I must not omit to notice a most important and overriding fact in the repositing of the uterus by this combination; one indeed, which bids fair to mark an era in the management of uterine congestion and ulceration, namely; I have found invariably, that when congestion and ulceration are complicated with prolapsus or versions, when the latter are fully and quietly removed by the above plan, the former have ever very soon commenced to improve, and, as a rule, to ultimately disappear. This fact, at first took me by surprise, but the frequency of its occurrence soon led me to see that it was in accord with our fundamental proposition, that "the viscera are as much under the law of an ordained primary position and bearing as the bones, and that derangements requiring mechanical aid will follow any change, in this respect as well as in the other." In this case, the mal-position has disturbed the vital status, and acted as an excitant or an irritant, which no medicine or local treatment can ever fully meet, until the primary law of position and bearing is resorted to rule.

So it is in luxations,—swelling, inflammation, pain, fever, tenanus, etc., ensue, threatening life, but all these instantly subside on reducing the luxations; and just so is it with uterine displacements, and now after many years of extensive experience I have not felt called upon to treat locally one tythe of the cases I formerly did; and what makes this idea very significant is this fact, that in several severe and protracted cases where the most eminent men had spent years (at intervals) in treating, by various substances, to get the uterus in a fit condition for reposition, I have induced a rapid cure by at once repositing, irrespective of soreness

or ulceration. I here add my solemn protest and charge against wasting the time, strength and money of the patient by treating persistently the mere ultimates of the malady, and leaving the mal-position (the real provocative) unattended to.

As to cases, out of hundreds of them I select but two or three as representatives, and refer to my "Pathology and Therapeutics" for reports of others, from prominent practitioners.

Case 1.—Mrs. McK., age, 32; no children; was the subject of complete and inveterate retroversion, for many years, accompanied by a remarkably atonic condition of the vulva and vagina, there seeming to be no remains of contractibility in them. The bladder was so drawn backward and down as to cause a constant propension to urinate, and the rectum was so compressed as to impede defacation and induce a constant sensation in the sacrum, of "boring," "aching," "weight, and the feeling of a flatiron resting in the hips," which was aggravated on standing and walking. All these were attended with that mental depression, pain and sense of weight and pressure in the top of the head, which are so usual in such cases.

To reposit the uterus, or to attempt retaining it by any of the various pessaries, was of no use, except when the instrument was so large as to strangulate the intro-pelvic, sanguinous and fœcal circulations. In this state, she was sent to the care of the most distinguished uterine manipulator of this country, Dr. Hodge of Philadelphia, where she enjoyed for months the assiduous care of that gentleman, several times a day, but gained nothing but the benefits of rest and sympathy. In this case, the horse-shoe and double lever pessary of Dr. Hodge had the fairest chance in the Doctor's own fingers, for months, and failed; the inconveniences of its use proving to be paramount to its advantages. When not so large as to strangulate; it would invariably tilt back under uterine and abdominal weight.

At this forlorn stage of the case I was placed in charge, with orders "never to give up." The abdominal and spinal brace gave much comfort by supporting the spine and abdomen, but rather aggravated the retroversion, the abdominal support acting so much above the retroverted uterus; nor could I possibly make any of the various pessaries comfortably retain the uterus in axio. In a fit of vexation at the idea that the combined professional ability of the old and new world could not balance two ounces of uterus, I examined the lady in a vertical position to see what could be the matter. In doing this I was surprised to notice that such was the expansion of the flabby vagina as to allow my two forefingers to pass between the uterus and rectum, entirely above the uterine fundus, so much so, as to draw the *os* against my finger at its junction with my palm. I also noticed that as the finger carried up the posterior *cul-de-sac*; the superior vagina was thereby so tensed as to forcibly pull back the *os* and consequently to poise the fundus over it. With the external brace on, this required no force, causing the woman to rise on her foes and fall heavily on her heels with "*chug*," whilst my fingers supported the posterior *cul-de-sac*. I noticed no disposition of the uterus to settle or retrovert; I also noticed that whilst doing this, the shortened and expanded vagina became materially elongated and correspondingly contracted diametrically, (two cardinal requisites, of which every pessary must be contraband.)

"There," exclaimed the lady, "hold me so all the while and I'll be in heaven."

This irradiated the darkness, and showed that after having first corrected the trunkal bearings, we were left to contend only with the weight of the uterus, and should never make the uterus a point, but merely support and carry up the *cul-de-sac*, and the work is done ; for this drags back the *os*, and that *compels the fundus* to *advance* and be poised over the *os*. Thus then, this long, rough and tortuous road was smoothed, shortened and made easy ; and furthermore, I learned that had Dr. Hodge effectively corrected the trunkal bearings, and then had reduced his large pessary to one-third its usual size, and supported it by an external base, he would long ago have seen the travail of his benevolent soul, and thus by his genius and the prestige of his great name, had his fight with uterine retroversion brought to an end.

For this lady, I at length developed the Retroversion Balance, and completely met the case ; and I must add, that my efforts in this case, one of so many distinguished failures, proved to be the fulcrum of the great desideratum in uterine obliquities.

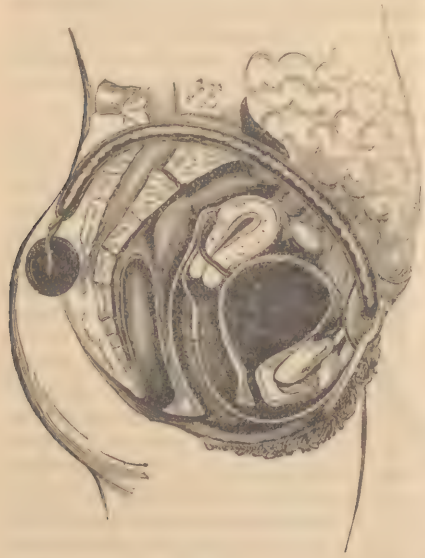


FIGURE 5.

The Brace and Uterine Balance acting together in a case of Retroversion. Observe the Abdominal Plate lifting the superincumbent weight from the womb, and the T piece of the balance lifting in the posterior fornex vaginæ without pressing upon the uterus, bladder or rectum directly.

Case 2.—Mrs.—— ——, a young married lady in good general health, was the subject of severe retroversion. Prof. Stephen R. Smith of Bellevue Hospital College, describes it to me thus. He says:—"Uterus greatly elongated and enlarged and so tender as not to admit of being touched ; the tenderness extends throughout the vagina and vulva; so much so, that to introduce the finger gives the most unbearable pain. The *os* is high up and behind the pubis, and the fundus presses so violently upon the rectum as to cause the merest fluid dejections to give excruciating suffering. The uterus is also fixated immovably ; scarifications, leeches and other means have failed to ameliorate, and with the constant use of heavy doses of morphine, the patient's moans disturb the boarders throughout a four story house; in this dilemma, I consulted Dr. ———, (the most distinguished member of the faculty of Bellevue College) who, in a careful examination, advised recumbency, together with leeches, scarifications, glycerine and other depletants, for about six months ; 'after which, you will," said he, 'be able to reposit the organ.' Thinking this to be cold comfort, I took your article on Uterine Displacements, (which from the first had impressed me very much), and immediately determined to give you the case, if you would take it."

Next day, we jointly visited the woman, and a more pitiably distressed object I never met. I placed her in the knee and face position and directed Dr. S. to powerfully draw the abdominal organs upward, whilst with my

FIGURE 6.

THE ABDOMINAL AND SPINAL SHOULDER-BRACE.—*A*, front pad, elevating the abdominal viscera.

B B, pads supporting the glutei muscles on either side of the sacrum.

C C, bows or arches of the main-spring, to which all the other parts are attached, rising above the innominatta, and sitting immovably on the body.

D D, aggressive support to each side of the weak lumbar spine.

E E, spring support resting on each head of the Humerus. The combined action of all these, is, to elevate the viscera, sustain the spine in its proper form, and poise the upper trunk *behind* the spinal axis.

Alsó, the balance attached to the brace, just curved to the vagina, its apex ascending high behind the uterus and supporting the posterior *cul-de sac*, and its free end loosening the uterine cervex, thereby simultaneously drawing back and down the *os*, and crowding up and forward the fundus to axio, without making the uterus a point, or infringing upon any diseased point, or interfering with the progress of any local treatment, when in position, the ring or balance also turning on its axis so as to meet any degree of laterality in the mal-position.

The Balance, in nearly all respects, differs from a pessary.

thumb in the rectum I got under and behind the uterine fundus, and by violent pushing, dislodged the uterus from its bed and restored it to situ. I then applied the Abdominal and Spinal Shoulder brace and introduced the Balance which, without force, held the organ in situ. In an hour, the woman said she was "in heaven." In a week, she returned well to Boston, and has so remained, now ten years since. This case will be found, as reported by Prof. Smith in the "Philadelphia Medical and Surgical Reporter;" also in my "Mechanical Pathology and Therapeutics."

Case 3.—Mrs. Judge B. of Paterson, N. J., age 35; general health and physique good; was very desirous for offspring and had for one or two years been steadily under local treatment for enlargement, congestion and ulceration of the *os*. She stated that cauterizations effected temporary improvements, which were always followed by relapses. Digital examination showed decided retroversion, with enlargement of the whole organ. The *os* was swollen and tumid, and of a purplish or livid color, and covered with a tenacious layer of mucous. I corrected the trunkal bearings by the external brace, and reposited the uterus with the Retroversion Balance, and declined to treat the diseased condition of the uterus, predicting that the latter would subside in due time just as swelling and pain subside when a luxation has been reduced.

On the fourth day, the

uterus was found perfectly in situ, its size greatly reduced, and the swollen and purple appearance of the *os* was displaced by a nearly natural size and a natural pinkish color, with no mucous coating over it. On asking the judge to look through the speculum, (for he was familiar with its use), he remarked:—"Well done, Doctor, that shows the difference between fine and coarse practice. Any one can persevere in burning a uterus for months, but it takes you to cure one without."

In two weeks she became *enciente*, and she has (now some several years since,) been a healthy and happy woman. How long would it have taken to establish this result by a simple system of cauterizations?

Thus we see the curative effect of simply reducing the uterine luxation.

OF ANTEVERSION OF THE UTERUS.

Of this uterine displacement, so near akin to retroversion, there is a numerous class, than which, uterine retroversion has ever proved more intractable. A digito-vaginal examination usually shows the following conditions, viz:—The vulva is found full and flabby; the labia disposed to be separated, and there frequently will be felt a small tumor pressing with more or less force in front, crowding upon and pushing the urethra before it. Quite frequently, this tumor is completely extruded, or rests in the meatus; but, on assuming the recumbent positions it pretty uniformly recedes. On carrying the finger back, the *os* is found quite posterior to its normal central position in the pelvis and the fundus either resting upon the bladder or fallen against it, and by the weight of the abdominal viscera, is crowding the bladder before it.

This protrusion of the bladder and urethra has given rise to the idea that this condition is a "hernia of the bladder," (and, indeed, sometimes may be such,) but, inasmuch as I have usually found these states accompanied by an anteverted condition of the womb, I can see no reason for so naming it; for, evidently, the settled abdominal viscera and the uterus, are the power and not the consequence. Anteversion of the uterus then, it appears to me, is the usual proper name, and this, more especially, as I find that a proper correction of the anteversion, invariably relieves the whole train of symptoms. With this, the description of the patient corresponds, to wit:—"Constant desire to make water," "heat and irritation about the parts," "a feeling of openness, as though something wanted to be born," "dragging feelings in the groins and a bearing down in front, with misery in the back."

INDICATIONS.

Obviously, these are.—1st, to correct the trunkal bearings by elevating the viscera, pushing forward the dorso-lumbar curve of the spine, and poising the upper trunk over or behind it. This removes aggressive weight away from the uterus and bladder. 2d, to reposit the uterus in axio by carrying the anterior *cul-de-sac* so high up between the uterus and bladder, as to compel the superior vagina to drag forward the retracted *os*, and of consequence, to throw the uterine fundus back to situ.

But, this cannot be done by the Retroversion Balance, which acts so happily in retroversion, for in retroversion the *os* has to be dragged downward and backward, and the fundus pushed upward and forward; whereas, in anteversion the *os* has to be drawn forward, and the fundus elevated and

thrown backwards; in other words, whilst the same principal is to be employed in anteversion and retroversion, the *application* has to be exactly reversed, just as the cases are reversed. To meet this indication, I simply shorten the vaginal end of the shaft (because the anterior vagina is shorter than the posterior) and turn the supporting heel of the ring from backward to forward, so that it elevates between the bladder and uterus in lieu of between rectum and uterus. See Fig. 4.

FIGURE 7.
The Abdominal and Spinal Shoulder Brace in its full capacity. Supporting the abdomen, bracing the small of the back and expanding the chest, being abdominal supporter and shoulder brace all in one. For both sexes in cases of weak backs, prolapsed bowels and round shoulders.

By the retro and anteversion balance, the oblong ring performs two offices besides the simple elevating one, viz:—The higher it is carried up in the vagina the more it compels the *os* to be dragged backward or forward, (as the indication may be), and thus forces the fundus correspondingly forward or backward, *without making the uterus a point*; thus the uterus turns upon its axis, and it is balanced without the possibility of ulcerative pressure; this latter immunity being the result of the yielding action of the spiral coil in the cylinder on the one hand, and the full removal of supeincumbent pressure on the uterus.

I have for many years been applying these principles in hundreds of cases of retroversion, anteversion, and lateral obliquities, with almost universal success, after all other methods have failed.

Case 1.—Mrs. ——, been married two years; had been confined to bed about same period with attack of syncope on every attempt at rising; complained of terrible sense of faintness, or "goneness" at the stomach; feet constantly cold, and nearly useless. There was a constant biting and imperious desire to urinate, and complained that, when she did, she "couldn't make out anything." Her very able physicians after trying every cobbling arrangement by pessaries, had given up in despair.

When I saw her, the anteversion was complete, and the uterine fundus had settled down behind the bladder so as to press and to retrovert it partially and destroy its retaining capacity. In this most forlorn hope, I applied the Abdominal and Spinal Shoulder Brace, and then the Anteversion Balance, which acted instantly to a charm in repositing the uterus, both as to its axis and its height. Her physician examined the case and was wild with delight at finding it just as it should be, and especially, to see the *os* dragged forward, as well as the fundus thrown back. Patient spoke particularly of a feeling of calm and quiet coming over her, with greater freedom of breathing.

This lady I immediately raised to a sitting posture on the edge of the bed, notwithstanding she protested it would kill her; after rubbing her limbs awhile, with arm around her waist I raised her to her feet, and after a short time, walked with her around the room—with none of the old syncope or unbearable uterine or urinary sufferings. On the next day she rode seven mile into town to be under my care; and within four weeks she returned

to her home to take personal charge of her domestic affairs. In truth, so wonderful was this change, as to be the excitement for a radius of many miles. In meantime, nothing else whatever was done.

The lesson we learn in this and other cases, is, that not only will this combination meet all the requisitions in anteversions, but, that a vast number of serious and frightfully nervous and sympathetic concomitants immediately commence to find their quietus.

Case 2.—Mrs. H. Cleveland, age 35, says:—"At the age of 11, I fell on my sitting place, and felt something give way, and from that hour to this, I have not known one hours' rest from a biting desire to urinate."

An examination showed a positive anteversion, with the uterus pressing so against the bladder as to diminish its size, and also to frict upon it in all her movements.

To this extreme case I of course applied the abdominal spinal shoulder-brace and the anteversion balance combined. In a little time she remarked: "Doctor, this is the first half hour I've spent free from severe distress, for twenty-five years." Owing to the great irritability of this case, it required some days to overcome all the uneasiness connected with the presence of the Balance near such very sore parts; but soon it adjusted itself, and she has ever since, (four years) been a comfortable woman; and I now feel called upon to say to the profession, that the desideratum is now supplied for those forlorn cases in which, heretofore, we have not enhanced our professional prestige, and certainly have not met the crying demands of a very numerous class of sufferers.

And now, in taking leave of this subject, I beg to remind the profession again, that not only will the foregoing principles, well applied, fill the requisitions, but remove or ameliorate concomitant indurations, congestions and ulcerations on the simple principle of having placed a quietus on their provocarives; and also, to urge the early reposition of the organ, irrespective of any diseased condition of the tissues, for I have found, that in many cases, the very tenderness which seems to forbid the presence of the Balance, will soon commence to subside under its presence; nor need this seem strange, since the pain, swelling, fever and delirium subside on reducing the luxation, and since other diseased conditions improve on being placed in a state of passivity.

HERNIA (RUPTURES).

These consist of protrusions of the bowels through enlarged and relaxed *natural* openings in the walls of the abdomen, at the navel—the lower boundaries of the abdomen and in the groins. They are always weakening and annoying: often painful and sometimes suddenly fatal, either from neglect or a poor truss. The weight of the bowels *above* the opening, pressing down upon the latter, is the producing and perpetuating cause.

To lift and support the whole bowel weight and hold it away from the weak openings is the true principle of cure, for, in proportion as we do that, the perpetuating cause is removed and far less plugging pressure upon the rupture is rendered requisite. The following are some of the defects of ordinary trusses.

1st. They do not *lift* the bowels from the weak point, and therefore a cruel amount of pressure is requisite to hold the rupture.

2d. The supporting pads are too large.

3d. The cushioning weakens and relaxes the parts by heat and perspiration.

4th. They damagingly press upon the spermatic chord and induce pain and often dangerous irritation.

5th. They press upon the lower and outer in lieu of the upper and inner ring.

6th. They press upon the back and thereby often cause pain and lameness and are easily displaced.

THE BANNING BRACE TRUSS *lifts* and *supports* the bowels, is immovable on the body; gives no pressure on the back; is cool and can relieve *five* several ruptures on the same body simultaneously.

FIG. 1.

FIG 2.

No. 1—Brace Truss for single or double Inguinal Hernia, curing chiefly by elevating bowel weight from the weak points. Sits immovably like a saddle on a horse, with no pressure on the spine or spermatic cords.

No. 2—Brace Truss for two Inguinal and an Umbilical Rupture; acts without bruising or pain. A nearly infallible success.

No. 3—Brace Truss in position, pressing no home nerve or blood-vessel, and acting chiefly by lifting.

FIG 3.

OFFICIAL ADOPTION OF THE BRACE TRUSSES IN THE ARMY.

To Surgeon C. McDOUGALL,
Medical Director, D. E.

NEW YORK, *August* 24, 1864.

SIR:—I respectfully propose under your direction, to take charge of the department of hernia within your department, give my personal energies to preserve a large proportion of now useless ruptured soldiers to full invalid corps service and to furnish to government my brace trusses for that object.

Your obedient servant,
E. P. BANNING, M.D.

MEDICAL DIRECTOR'S OFFICE, D. E.,
N. Y., *August* 24, 1864.

Respectfully transmitted for the consideration of the Acting Surgeon General. The Banning Truss has been highly commended by many army surgeons in charge of hospitals. It is, in my opinion, superior, in all of its indications, to any others I have examined.

The proposition of Dr. Banning to attend personally to each case, I hope will be favorably considered, as it will insure a fitting truss, and enable many to return to duty who would otherwise be discharged from service.

C. McDOUGALL, *Surgeon U. S. A.*,
Medical Director, Department of the East.

True copy. Respectfully returned to Surgeon Chas. McDougall, U. S. A., Medical Director at New York. The proposition of Dr. E. P. Banning is accepted.

By order of the Act'g Surg. Gen'l.

W. C. SPENCER, *Ass't Surg., U. S. A.*,

S. G. OFFICE, *Aug.* 26, 1864.

EXTRACT OF REPORT OF A SPECIAL BOARD OF ARMY SURGEONS.

The Truss under consideration has been examined by the Board, more particularly in its application to the treatment of hernia.

* * * * * *

In the cases of the different varieties of inguinal hernia, of which a list is appended, the general favorable result of its application was beyond question, and in comparison with the trusses in common use Dr. Banning's is considered infinitely superior. In every case, where the use of the Truss has been recommended by the Board, the hernia has been distinctly apparent, before the application of the instrument and after its removal; but while in proper position, in every case, and under all circumstances, the intestine has been retained in its proper cavity, even during the performance of the ordinary duties of hospital labor such as those of nurse, stretcher, bearer, &c.

Many of the cases* presented to the Board for examination were re-

* This early obliteration of the hernia is one of the peculiar actions of the Truss; and we received the unofficial assurance of the Board, that, in their opinion, the fifty rejected cases really constituted the glory of the investigation, although they could not so report on testimony.

jected, and do not appear on the following lists, by reason of no hernia being actually perceptible, nor could such be produced at the time of examination. At the same time, however, the Board cannot safely declare that no hernia existed when the Truss was originally applied, the testimony of the patients generally going to attest the fact.

(Sgd.) W. O. McDONALD, *Surgeon U. S. Vols.*
(Sgd.) W. L. FAXON, *Surgeon 32d Mass. Vols.*
(Sgd.) C. A. McCALL, *Asst. Surg. U. S. A.*,
Recorder.

A true copy.
By order of acting Chief Med. Officer.
JAMES COLLINS, *Asst. Surg. U. S. Vols.*,
Ex-Officer.

RETROVERSION, WITH UTERO-RECTAL ADHESIONS, SUCCESSFULLY TREATED.

By E. P. Banning, Sr., M.D., New York.

To all practitioners who have a large experience in uterine displacements, this phase of them must be familiar: and, when the adhesions are well confirmed, usually the following conditions will be found to exist:

First. The uterus will be found in a state of simple retroversion, uncomplicated with uterine flexions; as a state of flexion will so materially diminish the horizontal space which the verted organ occupies as to forestall adhesion from uterine pressure.

Second. Partly from the obstructive effect of recto-uterine pressure upon the vascular and nervous circulations in that locality, and partly from the irritative effect of such an unnatural pressure, there is usually such a hyperæsthesia, not only of the locked uterus, but also of the vagina and vulva, often as to preclude any attempt at reposition per the vagina.

Third. There will usually be found an enlarged, elongated, and congested condition, caused by the reactive pressure of the sacrum against the retroverted fundus, thereby inducing venous congestion.

Fourth. An examination of the rectum will show the uterine fundus to be more or less forcibly crowding upon the rectum, and sometimes forcibly closing that canal, and in most cases causing intense pain during the passage of even fluid dejections.

The extent of suffering consequent upon these conditions is always great, but must vary with the temperament of the patient; and is always so great as to demand its removal by any safe means.

But this, of course, involves the breaking up of the adhesions—an operation which consists of tearing apart two firmly-adherent peritoneal surfaces, with the chances of serious, not to say fatal, peritoneal inflammation; and we have to settle the question of abandoning the sufferer to a life-long and hopeless suffering, or of giving her the chances of the operation. On this latter point, so far as I know, the weight of eminent authority is against the latter. But nevertheless, I have determined to give the sufferer the chance, and now offer to the profession the highly gratifying results of my first four cases.

Case 1. Mrs. J., Lexington Avenue, N. Y., was directed to me by Dr. Lewis Sayre. She entered the room under great local and general distress, and said, "Can't stand this any longer!" She complained of constant agony through the sacrum, and suffered with ischuria; and during defecation all the intra-pelvic tissues were hyperæsthatic; the retroverted uterus totally immovable; the rectum was filled by the pressure of the uterine fundus, and a slight effort to reposit the organ showed a manifest adhesion.

In this case, I had no alternative but to operate; and placed the woman in the knee-face position, caused the abdomen to be drawn forward, and with the two forefingers of my right hand in the rectum I forcibly lifted (or boosted) the fundus up and forward, by long and continued force, till I began to be discouraged; when suddenly I felt the organ rise to a vertical position, and a vaginal examination showed that I had succeeded.

This done, it only remained to *retain* the organ *in situ*, which was readily done by applying the abdominal and spinal shoulder-brace, which effectually elevated the viscera from the uterus, and left me with only the simple two ounces of uterus to support. This latter I accomplished by inserting the uterine balance, which passes up behind the uterus and, like a crutch, supports the *cul-de-sac* and forces forward the fundus, and, with its fore part, so engages the advanced cervix as to drag it back to its normal position in the center of the pelvic cavity.

This done, the old suffering instantly disappeared. But the dreaded soreness of the two separated peritoneal surfaces appeared, but yielded readily to quiet and antiseptic treatment.

Case 2. Mrs. H. was placed in my hands by Prof. Stephen R. Smith. Her uterus was immovably fixed, between the sacrum and pubes, in a retroverted state, and was greatly elongated and enlarged, with an intense sensitiveness, both of itself and all the surrounding tissues. Every fluid dejection caused her to scream.

For two months she had been kept upon heavy doses of *Morphine*. Dr. S. informed me that very distinguished counsel advised constant "recumbency for six months, with leeches, scarifications, and glycerine, to reduce the size and congestion, hoping by these means to be able to reposit the organ." But seeing no hope in that direction, as the adhesions were becoming more and more firm, I determined to operate at once: and, with the abdomen well drawn forward by Dr. S., with a powerful elevating force in the rectum, below and behind the fundus, we succeeded in breaking up the adhesions, and afterwards in retaining the organ *in situ*, by the application of the abdominal brace and the uterine balance, just as in Case 1.

The relief from suffering was complete, and the pretty severe rectal and uterine tenderness which resulted, passed readily away in due time, with no untoward symptom.

Case 3. Mrs. B., of Philadelphia. In this case the late Prof. Pepper had pronounced the rectro-uterine adhesion to be hopeless, and abandoned his old patron and professional admirer to her suffering fate. But, as her condition could not admit the thought of any intercourse, her husband insisted on her consulting me; but, under the circumstances, I refused to meddle with the case unless it was placed in my hands by Dr. Pepper, which was promptly done, but not without a repetition of his unfavorable prognosis.

In *this* case I used anæsthetics, which were applied by Dr. Woods; and Dr. White rendered other valuable assistance during the operation, which was performed with the lady on her left side. The adhesion was *very obstinate*, and was operated on by force through the rectum; but at length it yielded, and the uterus was retained by means of the external brace and internal balance combined, as in the other cases. The resultant soreness of the rectal and uterine surfaces was very annoying, but, as in other cases, yielded to treatment readily.

After the patient's full recovery being assured to Dr. Pepper by Dr. J. White, Dr. P. gave me his pleased congratulations; yet, nevertheless, in his lectures on this subject, and this particular case, he closed by saying: "Gentlemen, in this case Dr. Banning has succeeded; but, so serious are the liabilities in such a case, that I recommend *to you* never to try it."

Case 4. Miss W., an unmarried lady, from Mexico, N. Y., whose health had run down very low after many efforts to break up a recto-uterine adhesion, and who had been professionally assured that an effective operation would result in death, came to us, but we declined to operate until she said: "I've come to be cured or be taken home in a box."

The operation was successful, although the adhesion must have been more confirmed and obstinate than my other cases had been, as the resulting hæmorrhage from the uterus was for a time quite profuse; yet, on the whole, they evidently were an advantage to the patient, as her recovery was more rapid, and attended with far less tenderness than was that of the other cases.

Thus, then, with this uniform favorable record, I feel called upon (all things equal) to give these forlorn sufferers the benefit of the operation under proper limitations; and it now only remains to remark:—

1st. That I never delay the operation an hour on account of inflammation, tenderness, or enlargement, as all these are contingent to the locked condition of the uterus betwixt the sacrum and the pubes, and will readily disappear on restoring the uterus to a vertical position, and will never do this in its locked condition.

2nd. That an anæsthetic should always precede the operation.

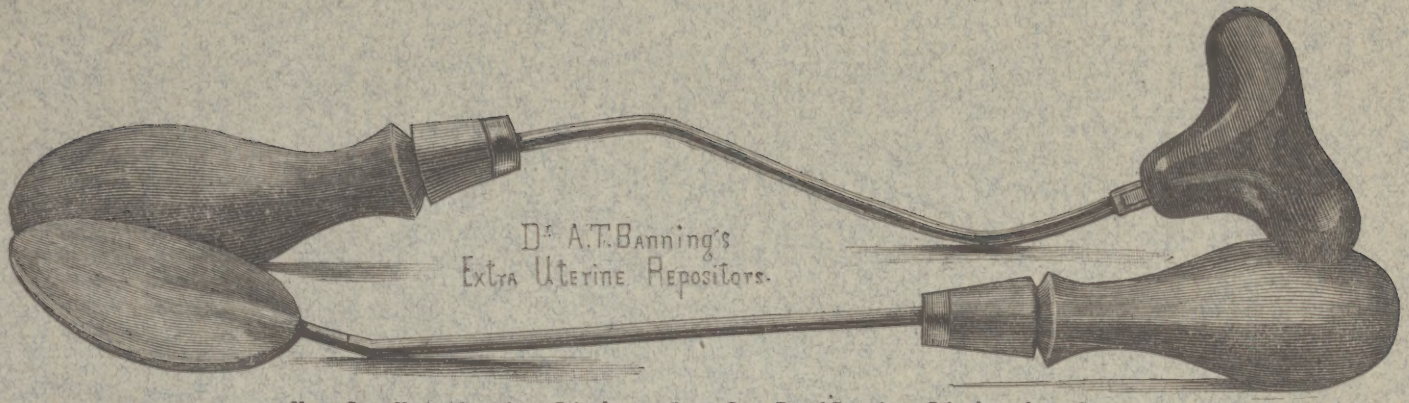
3d. That no violent or fitful force must be used, but on the contrary only a prolonged and steady one; and that force to be watched, and the vagina to be supported from within it by one or two fingers of the right hand.

4th. That a flat elevator, with its handle so carried as to prevent the two hands interfering with each other, is the best means for the proper force in these cases.

And lastly, the progress and effect of the force must be narrowly watched with the fingers of the right hand, lest possibly there might be made a rent in the rectum or vagina.—*New York Medical Times.*

Address only, **DR. A. T. BANNING,**
9 Saint Mark's Place, N. Y.

For Illustration of Instruments used in these operations see loose page.



Upper Cut.—Vaginal Repositor. Price $5. Lower Cut.—Rectal Repositor. Price $4, or $8 per Set.

The Extra Uterine Repositors have been used by Dr. Banning in his private practice for many years, and are the instruments referred to in the article on Utero-rectal Adhesions, (see last two pages of pamphlet), and are also applicable to any ordinary case of displacement where the fingers are not of sufficient length to perfectly reposit the uterus. They are positively the most harmless and perfect instruments for uterine reposition yet invented. Acting in the fornex vaginæ and in the rectum on the body of the uterus, an obstinate case of impaction or adhesions will yield readily. A concealed spiral spring in the T piece, which becomes compact when the maximum of pressure is reached, is a gauge to the operator. No danger of lacerating the mucous membrane, and thereby provoking chronic inflammation. The Set are now offered to the profession, in a neat morocco case, at the extremely low price of $8.00. For sale by all Instrument Makers, or can be had directly from the Inventor,

DR. A. T. BANNING,

9 East 8th Street (St. Mark's Place), New York.

No Instruments consigned, sent on trial, or on the contingency of success. We make only positive sales.

S. W. Butler, the editor of the Philadelphia *Medical and Surgical Reporter*, in the number for November 9th, 1866, says:

"We have on our table a number of communications in reference to Dr. Banning's Braces, and it seems proper to give publicity to portions of some of them.

"Dr. D. B. Allen, of West Liberty, Ohio, writes:

"'With an experience of a quarter of a century in the profession, I am compelled to say that there has been no class of diseases that have given me more perplexity, and none that I have treated so unsatisfactorily to myself, as the various forms of uterine displacements. Since reading Dr. Banning's papers, I have ordered a number of his appliances, and especially must I speak in commendation of his brace and balance.

"'I will cite two cases only for the present, in which I used the brace and balance with entire success. I will just say that these cases had been treated by a number of respectable physicians before they came into my hands without any lasting benefit. They were extreme cases of procidentia, with ulceration of the os; one of eight and the other of four years' standing, with an exhausting leucorrhœa and menorrhagia.

"'One of them had become so anæmic that her friends supposed her case entirely hopeless, and only expected to have her suffering made tolerable until death should close the scene. I applied Banning's brace and balance, and the moment the instrument was adjusted, the patient brightened up into new life, the dragging pain in the back, burning heat on top of the head, confusion of mind, and gloomy foreboding were all gone. In her own language: 'I am in a new world, the weight is all gone, I have not felt so for years.' Since that time (a period of five months) she has been improving; leucorrhœa all gone, catamenia normal, rests well at night (something that she has been a stranger to for years).

"'The second case had not become so much reduced, but the symptoms were none the less alarming. She had so much confusion of mind, that her friends became alarmed, for fear that she would become totally deranged. Relief in this case was just as satisfactory as in the former.

"'Before closing, I will say that I am forcibly impressed with Dr. Banning's theory of mechanical support. Whether he claims too much for his appliances or not, I am not able to say, as I have not yet had the opportunity of testing them as extensively as I trust I shall be able to do in the future. I make the above statements, because I not only consider them due to Dr. B., but to suffering humanity.'

"Dr. James D. Robinson, of Wooster, Ohio, writes:

"'Mrs. ———, married, aged 35, was for several years the subject of an extreme retro-flexion of the uterus, accompanied by chronic endrometritis, with occasional acute attacks. So tender and enlarged was the uterus at all times, and so forcibly was the fundus crushed down upon the rectum, as to cause the usual obstructions to defecation and micturition, and to utterly prevent its reposition at any time. In this case, both my predecessors and myself had faithfully plied every reputed general and local treatment, with only a temporary palliation. Varieties of supporters and pessaries were fully tried. From the former, some mitigation was experienced, but the latter could not be tolerated, owing to the extreme tenderness of all the inter-pelvic parts and the immovable condition of the uterine fundus.

"'Finally, failing to discern any rational prospect ahead for the patient, I induced her, by short stages, to visit Dr. Banning, at New York, where (she informed me) she received no treatment but the adjustment of the abdominal and spinal shoulder brace and uterine balance combined, as described by Dr. B., in his first paper, in the June 16th, '66, number of the *Reporter*. The result was a complet cure.'

"Other cases have been reported to us verbally, and the testimony we have received is almost uniformly in favor of these appliances."